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(54) **MAGNETIC BRAKE ASSIST,TRACTION CONTROL AND FORWARD ASSIST**

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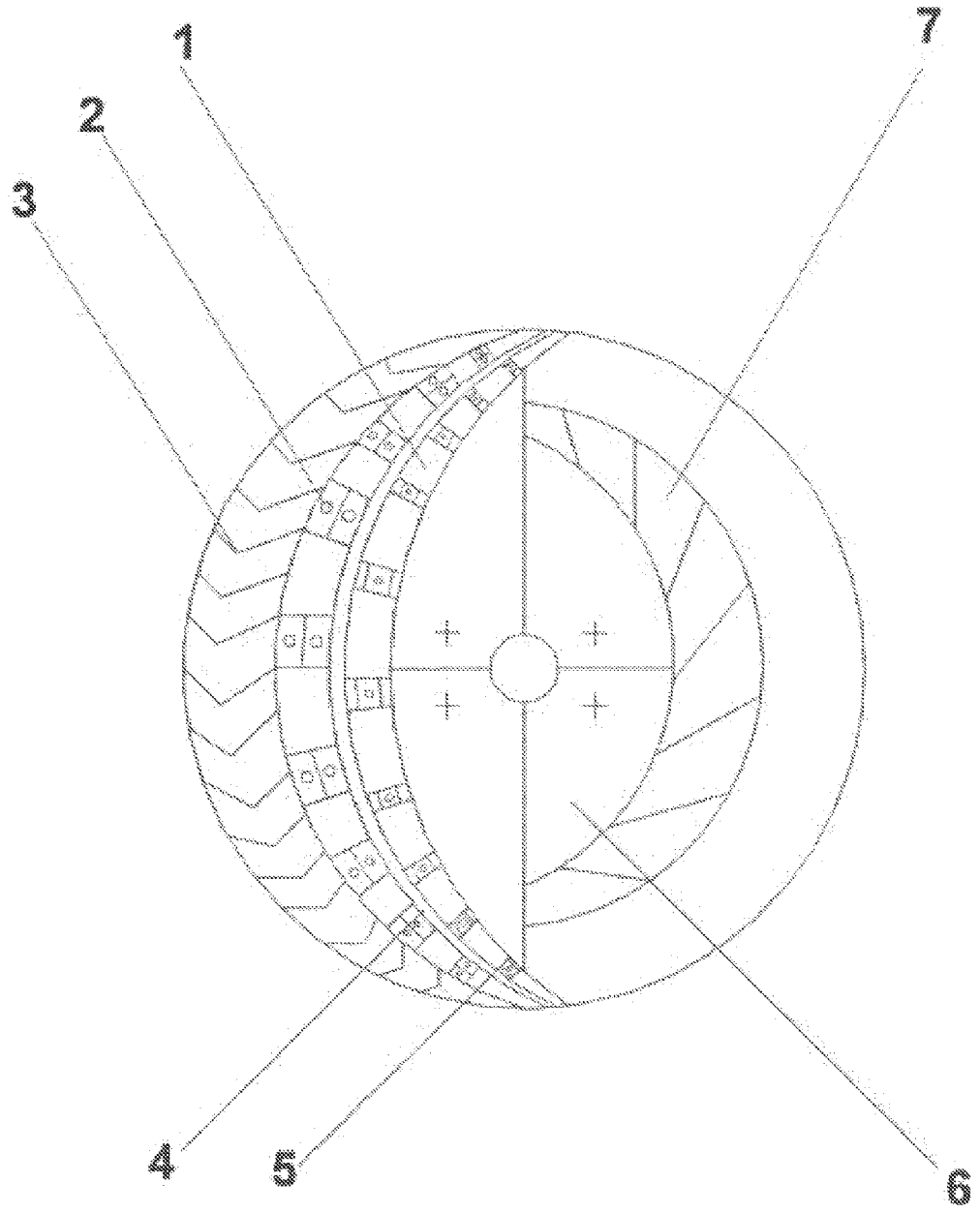
(57) **ABSTRACT**

This device is magnetic brake assist, traction control and forward assist. It uses magnets inserted in the vehicles rims and in a stationary hub bolted behind the wheels hub and brake disk; to either slow the rotation of the tire down or speed the rotation up for braking and or for forward assist.



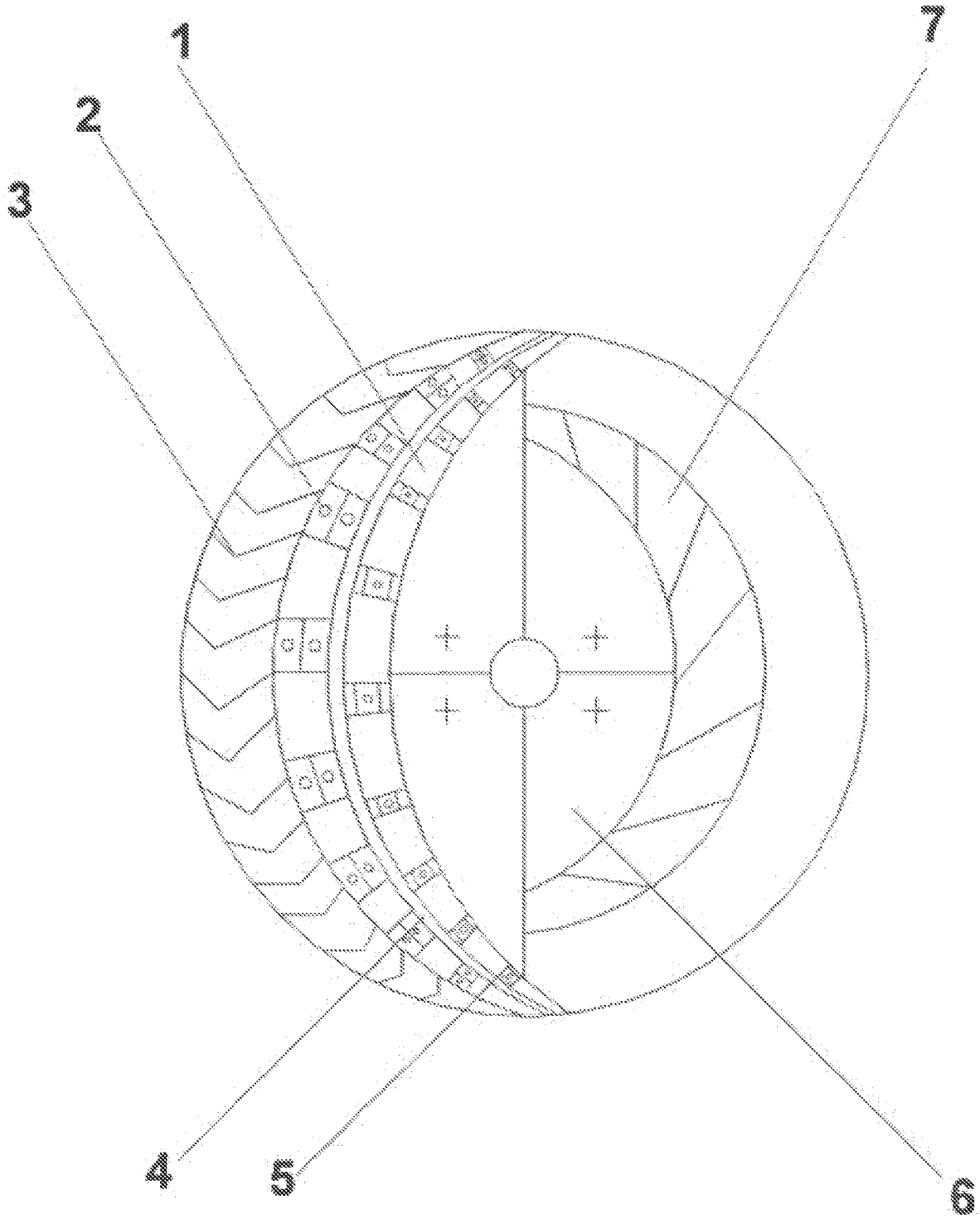


Fig.1

MAGNETIC BRAKE ASSIST,TRACTION CONTROL AND FORWARD ASSIST

FIELD

[0001] The present application relates to a Magnetic Brake Assist Hub used to assist in braking and also used for traction control and forward assist.

BACKGROUND

[0002] This Magnetic Brake Assist Hub will use electromagnets in conjunction with earth magnets to slow the rotation of the tire.

SUMMARY

[0003] The magnetic brake assist Hub will be used to slow the rotation of the inside tires during banking in a curve allowing it to turn the vehicle more efficiently in the curve without having to slow the momentum of the vehicle using the manual brakes.

[0004] The Hub will also slow the rotation of the tires incase of a spinout as a way of traction control.

[0005] The Hub will also use the magnets to help drive the wheels forward helping with fuel consumption as a forward assist feature.

BRIEF DESCRIPTION OF THE DRAWING

[0006] In the following detailed portion of the present description, the teachings of the present application will be explained in more detail with reference to the example embodiments shown in the drawings, in

[0007] FIG. **1** is an isometric view of the Magnetic Brake Assist Hub. It also shows the tire, the rim, the electromagnets, the earth magnets and the brake disk according to the first embodiment.

DETAILED DESCRIPTION

[0008] The following is a detailed description of the Magnetic Brake Assist unit.

[0009] FIG. **1** Number **1** is a description of the inner magna hub. It is comprised of a round aluminum hub that is bolted behind the brake disk to the wheel hub. It has a row of electromagnets evenly spaced around the whole circumference of the hub. The electromagnets will be inserted with one side facing up. A switch will be used to charge the direction of the electrical current from one side of the magnet to the other side, thus changing the polarity of the exposed side of the electromagnet to positive to negative during operation.

[0010] FIG. **1** Number **2** is a description of an aluminum rim with earth magnets inserted on the inside of the wheel circumference. They will be evenly spaced and set in order with their polarity starting with negative, positive, negative, positive alternating the polarities from negative to positive around the circumference of the wheel. The aluminum rim and tire will act as the outer magna hub. It will slide over the top of the inner magna hub with a clearance of no less than one and a half inches. It will also have a dust and debris ring installed to keep dirt, rocks and foreign objects from getting in between the two hubs and causing the wheel to lock up or damage the magnets. The rim and tire acting as the outer magna hub will be bolted to the lug nuts. The inner magna hub will be bolted behind the brake disk and the wheel hub. It will be stationary and will turn only from side to side as you turn the steering wheel. The rim and the tire acting as the outer magna hub will rotate around the inner magna hub as the wheel moves forward. We will use the electromagnets in the inner magna hub; and adjust their polarity to ether pull the earth magnet in the outer magna hug either towards them or push them away depending on if we are trying to stop the tire or push the tire forward.

[0011] Eventually we will power the outer magna hub comprising of the tire and rim by inserting a power in the center of the hub to keep the tire in balance. We will then add electromagnets to the outer magna hub to be able to further manipulate the polarities.

[0012] FIG. **1** number **3** the tire.

[0013] FIG. **1** number **4** the earth magnet.

[0014] FIG. **1** number **5** the electromagnets.

[0015] FIG. **1** number **6** the wheel hub and lugs.

[0016] FIG. **1** number **7** the brake disk and brake caliper.

1. This device is magnetic brake assist. It uses magnets installed in the tires and rims and magnets installed in a stationary hub bolted behind the wheel hub and brake disk to slow the rotation of the tires to assist in braking.

2. This device, according to claim **1** can also be used for traction control by slowing rotation of the inside tires in a curve helping it turn better.

3. This device according to claim **1** can also slow the rotation of the spinning tire in the event of a spinout and or hydroplaning situation helping to straighten the vehicle out.

4. This device according to claim **1** can also use alternating polarities using the magnets that are installed in the hub to propel the tires forward thus creating forward assist.

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